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**PUBLICATION RELEASE**

**CGS SPECIAL REPORT 220 / USGS OPEN FILE REPORT 2011-1871  
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**LIQUEFACTION AND OTHER GROUND FAILURES IN IMPERIAL COUNTY, CALIFORNIA, FROM  
THE APRIL 4, 2010 EL MAYOR-CUCAPAH EARTHQUAKE**

by

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The Colorado River Delta region of southern Imperial Valley, California and Mexicali Valley, Baja California, is a region of highly productive agriculture and extensive geothermal resources. It also is a tectonically dynamic area characterized by numerous active faults and frequent large seismic events. The M7.2 El Mayor-Cucapah earthquake of April 4, 2010, ruptured approximately 120 kilometers along several known faults in Baja California. Soil liquefaction and its related effects damaged numerous roads, bridges, levees, and dams throughout the southwestern third of Imperial County.

This report, jointly published by the California Geological Survey and the U.S. Geological Survey, documents observed ground failures in the irrigated portion of southern Imperial Valley, the majority of which are attributed to soil liquefaction. The observations were made by teams of geologists and engineers from the U.S. Geological Survey, the California Geological Survey, and University of California, Los Angeles within the first week following the earthquake. The increased understanding of the spatial distribution of liquefaction-related ground failures holds the potential to improve infrastructure resiliency to future earthquakes in Imperial County and other tectonically active areas of the state.

CGS Special Report 220 is available as a free download from the California Geological Survey Website (<http://www.conservation.ca.gov/cgs/information/publications/>). This report is also available as USGS Open File Report 2011-1871 and can be downloaded from the USGS publications website (<http://pubs.usgs.gov/of/2011/1071>).